

II. Amendments to the Claims

This listing of claims replaces without prejudice all prior versions and listings of claims in the application:

Listing of Claims:

1. (Original) A method for treating waste products and recycling products of solid organic or inorganic materials or composite materials or mixtures thereof, characterised in that in the composite material or mixture a breaking-up or separation of the components is effected by means of an impulse by a device which suddenly interrupts the flow of said composite materials or mixture.
2. (Original) Method according to Claim 1, characterised in that process air is fed on a counter-rotating rising flow path (34) into the spiral-shaped downward transport path (32) generated in a rotor (26) having a vertical axis (A).
3. (Original) Method according to Claim 2, characterised in that a shock wave is generated between the layers of the composite material against a deflector wall (20) of the rotor (26).
4. (Currently Amended) Method according to ~~Claim 2 or 3~~ claim 2, characterised in that two wall faces (22, 22a) arranged coaxially and at a reciprocal radial distance (a) rotate relatively to one another about their axis and the composite materials or mixtures moved by centrifugal forces are moved and broken up between deflector faces (24) projecting radially from the deflector walls.
5. (Currently Amended) Method according to ~~any one of claims 1 to 4~~ claim 1, characterised in that the composite material (10) is broken up on impact against a deflector wall (20) and its metal constituents are deformed in a sphere-like manner (Fig. 1).

6. (Original) Method according to Claim 5, characterised in that the layer-like metal component is rolled up during the deformation process (Fig. 2).
7. (Currently Amended) Method according to ~~any one of claims 1 to 6~~ claim 1, whereby the composite element or mixture is comminuted before the separation or breaking-up process, characterised in that the composite element is reduced to a particle size of 10 mm to 50 mm.
8. (Currently Amended) Method according to ~~any one of claims 1 to 7~~ claim 1, characterised in that the composite element is subjected to thermal pre-treatment before the separation or breaking-up process.
9. (Currently Amended) Method according to ~~any one of claims 1 to 8~~ claim 1, characterised in that the material discharged from the separation or breaking-up process is subjected to a separation and/or sifting process.
10. (Original) Method according to Claim 9, characterised in that the material discharged from the separation or breaking-up process is subjected to a process for separating non-ferrous metals.
11. (Currently Amended) Method according to ~~Claim 9 or 10~~ claim 9, characterised in that separation is carried out on separator tables and/or by fluidised bed separators.
12. (Currently Amended) Method according to ~~any one of claims 9 to 11~~ claim 9, characterised in that the metal and/or plastics parts are compacted after separation.
13. (Currently Amended) Method according to ~~any one of claims 1 to 12~~ claim 1, characterised in that the plastics materials are separated from one another by turbo-laminar separation and/or identification.
14. (Currently Amended) Method according to ~~Claim 8 or 9~~ claim 8, characterised in that the metal and/or plastics constituents are extruded after separation.
15. (Original) A device for implementing the method according to any one of the preceding claims, characterised in that the transport path (32) for the composite materials (10) or the mixture is directed in the interior (28) of a rotor (26) in the opposite direction to the flow path (34) of process air.
16. (Original) Device according to Claim 15, characterised in that the material feed device

(30) is arranged in the roof area of the rotor (26).

17. (Currently Amended) Device according to ~~Claim 15 or 16~~ claim 15, characterised in that the transport path (32) is disposed between two relatively movable wall faces (22, 22_a) spaced apart by a distance (a), from which wall faces (22, 22_a) deflector faces (24, 24_a) project on both sides into the transport path and are offset with respect to one another.

18. (Original) Device according to Claim 17, characterised in that the wall faces (22, 22_a) are curved coaxially.

19. (Currently Amended) Device according to ~~Claim 17 or 18~~ claim 17, characterised in that the wall faces (22, 22_a) are journaled rotatably in the direction of rotation (y_1) of the rotor (26).